



## ANTI-RUST SYNTHETIC HYDRAULIC FLUID

**NATO CODE H-544 – MIL-PRF-46170 E Type 1 – TL 9150-0097 Aug. 3**

### DESCRIPTION

Hydrauncoil FH 3 is a synthetic hydraulic fluid based on a blend of poly-alpha-olefins (PAO) and synthetic esters, with a viscosity of 15 cSt at 40°C, and a viscosity index of 125. It combines most of the features of Hydrauncoil FH 2 (MIL-PRF-83282/H-537) with strong anti-rust properties and protection from galvanic corrosion.

The undyed - pale yellow - Hydrauncoil FH 3 is covered by NATO code H-544. It is a micro-filtered fluid.



### APPLICATION

Hydrauncoil FH 3 is primarily used in tank recoil mechanism and hydraulic systems of ground equipment. It enables safer handling and operation at high temperature compared to the previous generation of petroleum-based fluids that exhibit low flash and fire points.

Characteristic	Unit	Typical Result	MIL-PRF- 46170 E Limit	Test method
- Appearance	-	yellowish	clear liquid	Visual
- Density at 20°C	Kg/dm <sup>3</sup>	0.850	report	ASTM D 4052
- Kinematic viscosity at 100°C	mm <sup>2</sup> /s	3.64	min. 3.40	ASTM D 445
40°C		15.1	max. 19.5	
- 40°C		2330	max. 2600	
- Flash point	°C	220	min. 218	ASTM D 92
- Fire point	°C	248	min. 246	ASTM D 92
- Pour point	°C	- 69	max. - 54	ASTM D 97
- Total acid number	mg KOH/g	0.05	max. 0.20	ASTM D 974
- Evaporation loss, 22 h at 149°C	%w	3.7	max. 5.0	ASTM D 972
- Foaming characteristics (tendenc/stability) at 24°C	cm <sup>3</sup> /cm <sup>3</sup>	12/0	max. 65 / max. 0	ASTM D 892
at 94°C		11/0	max. 65 / max. 0	
at 24°C after 94°C		12/0	max. 65 / max. 0	
- Steel on steel wear, 4-ball machine, scar diameter	mm			ASTM D 4172
After 1 h at 147 N	0.25	max. 0.30		
After 1 h 392 N	0.49	max. 0.65		
- Solid particle content	nb/100 cm <sup>3</sup>	2400	max. 10000	HIAC automatic counter
5 - 25 µm		45	max. 250	
26 - 50 µm		15	max. 50	
51 - 100 µm		1	max. 10	
- Water content	mg/kg	200	max. 500	ASTM D 1533
- Auto-ignition temperature	°C	380	min. 343	ASTM E 659
- Galvanic corrosion	-	pass	no corrosion	FTM-S-791-5322
- Rust prevention test - 100 h at 49°C				ASTM D 1748
Polished specimens		pass 240h	no corrosion	
Sandblasted specimens		pass 240h	no corrosion	
- Elastomer NBR-L compatibility, 168 h at 70°C	%v	18.9	15.0 - 25.0	FTM-S-791-3603

The values above are typical values. They do not constitute any contractual commitment. Sales specifications are available on request. The present technical data sheet replaces all the previous editions.

